

REMARKS

Applicant respectfully traverses the rejection of claims 1-4, 6, and 7 under 35 U.S.C. § 103(a) over Kawahara et al. (JP 2004-099696) ("Kawahara") in view of S. Kawahara et al. (Polym. Adv. Technol., 2004, Vol. 15, pp. 181-184) ("S. Kawahara"), and the § 103(a) rejection of claims 1-7 over Saito et al. (*Purification of Natural Rubber with Urea*, Proc. 16th. Elastomer Forum of Soc. Rubber Ind., 2003, pp. 1-3) ("Saito") in view of U.S. Patent No. 5,777,004 to Trautman ("Trautman"), and further in view of S. Kawahara.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. M.P.E.P. § 2143, 8th Ed., Rev 7 (July 2008). A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. M.P.E.P. § 2141.02(VI) (emphasis in original). Further, "[t]he key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious." M.P.E.P. § 2142.

Pending independent claim 1 recites, among other things, "transporting [a] mixture through the fluid channel while agitating and mixing to denature proteins in raw natural rubber latex . . . for a period of 5 to 10 minutes." Each of claims 6 and 7 includes a similar recitation.

As explained in the as-filed specification at page 9, lines 11-15, the "transporting . . . while agitating and mixing . . ." disclosed in the present application "generates a turbulent flow of [an] added protein-denaturing agent and [a] surfactant by force of the flow in [a] pipe[:]; the added protein-denaturing agent and the surfactant are stirred and

mixed with natural rubber latex[;] and denaturation of proteins in the natural rubber latex occurs concurrently therewith during transportation through the fluid channel in the pipe.”

In contrast, as admitted at page 3 of the Office Action, Kawahara does not disclose or suggest the above-mentioned “transporting . . . while agitating and mixing . . .,” as recited in claims 1, 6, and 7. Kawahara, e.g. in Examples 1 and 2 at ¶¶ [0028-0029], teaches that natural rubber latex to which an anionic surface active agent sodium-lauryl-sulfate (allegedly corresponding to the claimed protein-denaturing agent) was added was left to settle for 60 minutes. In other words, the natural rubber latex and anionic surface active agent sodium-lauryl-sulfate are not agitated. One of ordinary skill in the art would recognize that Kawahara’s disclosed 60-minute settling step would be necessary to stabilize the natural rubber latex and would not have had any legitimate reason to agitate and mix its natural rubber latex and anionic surface active agent sodium-lauryl-sulfate. See M.P.E.P. §2143.02(II).

As admitted at page 4 of the Office Action, Saito neither discloses nor suggests the above-mentioned step of claims 1, 6, and 7. Instead, Saito, e.g., at page 1, line 12 and Table 1, teaches incubating for denaturation for at least 60 minutes. Trautman, e.g., at col. 5, lines 29-35 also teaches incubating its mixture to digest for a time sufficient for protein hydrolysis, gently agitating every 2 to 12 hours, which is much longer than 5 to 10 minutes as claimed. S. Kawahara, e.g., at page 181, right column, lines 25-29, also teaches incubating its mixture for 12 hours. After considering the cited references including the above-mentioned portions, one of ordinary skill in the art would not have had any legitimate reason for agitating and mixing for a period of 5 to 10

minutes as claimed and would not have reasonably expected successful results in protein denaturation. See M.P.E.P. §2143.02(II).

For at least the above reasons, the 35 U.S.C. § 103(a) rejections of claim 1, its dependent claims 2-5, and claims 6-7 should be withdrawn, and claims 1-7 should be allowed.


The Office Action alleged that claims 6 and 7 are substantial duplicates of claim 1 for the reasons set forth in the Office Action at page 5. Applicant respectfully requests reconsideration and notes that claims 6 and 7 have a scope different from that of claim 1. In addition, Applicant respectfully submits that once the claims are deemed to be in condition for allowance, if the Examiner still believes that there is a duplicate claim issue, Applicant will act on the claims accordingly. See M.P.E.P. § 706.03(k).

Applicant respectfully requests reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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By: Reg No. 27,680 / 62

Dated: October 30, 2009

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